

Remarks

Favorable reconsideration is respectfully requested in view of the above amendments and the following comments. Figures 1 and 2 are amended to indicate that they depict prior art. Claims 1-5 are amended for formal reasons. In particular, claims 1, 2, and 5 are amended to emphasize that the partitioning device absorbs transverse stresses, i.e. those that cause the strip to deviate from a straight path. Such a function is supported by the disclosure, for example in Figures 1-4. No new matter has been added. Claims 1-5 are pending in the application.

In the Office Action, the Information Disclosure Statement filed September 20, 2000, is objected to as failing to comply with 37 CFR 1.98(a)(3), and in particular as lacking a concise explanation of the relevance of each patent not in English. Applicants respectfully traverse the objection.

Applicants note that only one reference, DE 195 24 729 A1, was cited thereon. Applicants submitted an English-language copy of the abstract of DE 195 24 729 A1 with the Information Disclosure Statement, as indicated thereon. Applicants believe this constitutes a concise explanation of the relevance of this reference, and that it therefore satisfies the requirements of 37 CFR 1.98(a)(3). A copy of the English-language abstract is enclosed herewith for the Examiner's convenience. Reconsideration and withdrawal of the objection is respectfully requested.

Figure 1 is objected to as not being identified as prior art. Figure 1 is amended herein to include a legend identifying it as prior art. Applicants note that Figure 2 is amended similarly. Applicants believe the amendments overcome the objection. Reconsideration and withdrawal of the objection is respectfully requested.

Claims 1-5 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicants respectfully traverse the rejection.

In particular, the rejection asserts that the meaning of the term "limited" as recited in claims 1, 2, and 5 is unclear. Applicants respectfully submit that a strip length portion limited between (for example) two rolls is that portion of the strip's length that extends between those rolls. Claims 1, 2, and 5 are amended herein to emphasize this.

The rejection also asserts that claims 1 and 5 are written as a series of results. Claims 1 and 5 are amended herein to recite positive method steps.

The rejection further asserts that claim 4 lacks antecedent basis for "the rollers". Claim 4 is amended herein to recite "the at least one roller", for which antecedent basis is provided in claim 3.

Applicants believe that the pending claims as-amended are definite. Reconsideration and withdrawal of the rejection is respectfully requested. Applicants do not concede the correctness of the rejection.

Claims 1-5 are rejected under 35 U.S.C. § 102(b), as being anticipated by any of Foster et al. (U.S. Patent No. 3,330,457), Perrine (U.S. Patent No. 3,227,347), and Børresen et al. (U.S. Patent No. 5,964,390). Applicants respectfully traverse the rejection.

The claimed invention according to claim 1 comprises a method for rolling a strip of uneven thickness, comprising the steps of measuring the tension in the strip, and absorbing transverse stresses in the strip with a partitioning device. That is, the partitioning device helps avoid the sort of distortions illustrated in Figure 1. Claim 5 recites a similar method for use with a strip of even thickness, and claim 2 recites a device for rolling strip that operates on a similar principle.

The rejection characterizes the dancer roll 24 of Foster, the tension roll 26 of Perrine, and the tension measuring wheel 17 of Børresen as being equivalent to a tension measuring roller of the claimed invention.

Applicants respectfully traverse these characterizations. In particular, Applicants find no disclosure that either the dancer roll 24 of Foster or the tension roll 26 of Perrine are measuring rolls, and find no suggestion that they are or could be used as such.

However, even if the components in question are equivalent to the tension measuring roller of the claimed invention, which point Applicants do not concede, none of Foster, Perrine, or Børresen discloses or even suggests a partitioning device that absorbs transverse stresses on a strip.

The rejection asserts that the idler rolls 26 of Foster, the deflector rolls 24 and 28 of Perrine, and the roller 10 of Børresen are partitioning devices. Applicants again note that the partitioning device of the claimed invention absorbs transverse tensions. Applicants find no disclosure of such a function for any of these structures.

As disclosed for example at column 3, lines 60-68, the device of Foster, and in particular the dancer roll 24 and associated idler rolls 26, function so as to regulate longitudinal tensions, i.e. tensions that vary with the length of a web. Longitudinal tensions are different from transverse tensions, at least insofar as they are oriented in different directions. Even if Foster is capable of handling longitudinal tensions as disclosed, this would not constitute absorption of transverse tensions.

As disclosed for example at column 3, lines 35-47, deflector rolls 24 and 28 of Perrine act to change the direction of the web, not to absorb either longitudinal or transverse tension. Similarly to Foster, Perrine discloses for example at column 1, lines 11-21 that it is directed towards maintaining tension in a strip throughout a processing line, i.e., along the length of the strip.

Likewise, as disclosed for example in the abstract of Børresen, the device described therein is adapted for holding a predetermined tension in a web as it passes through a control unit and to a process line, i.e., along the length of the strip. In addition, as suggested at column 3,

lines 7-11, Applicants respectfully submit that the roller 10 of Børresen operates to change the direction of the web, not to control its tension, either longitudinal or transverse.

Applicants respectfully submit that none of the cited references discloses or suggests that either the structures referred to by the rejection or any other structure therein absorbs or could absorb transverse tensions. In particular, with regard to claim 1, none of the references discloses or suggests absorbing the transverse tensions that would be induced by a strip of uneven thickness.

As the claimed invention according to claims 1, 2, and 5 comprises elements and functions neither disclosed nor suggested in any of Foster, Perrine, or Børresen. Applicants respectfully submit that claims 1, 2, and 5 are not anticipated by Foster, Perrine, or Børresen. Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 3 and 4 depend from claim 2, and incorporate the limitations thereof. The above arguments apply equally to claims 3 and 4, and Applicants respectfully submit that these dependent claims need not be argued separately. Applicants do not concede the correctness of the rejection, and reserve the right to present further arguments.

As all issues raised in the Office Action are now addressed, Applicants believe that all pending claims are in condition for allowance. Favorable reconsideration in the form of a Notice of Allowance is respectfully requested.

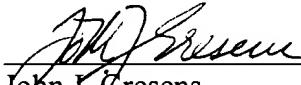
If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicant's primary attorney-of-record, John J. Gresens (Reg. No 33,112) at (612) 371-5265.

Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: GERT MECKE ET AL. Examiner: J. JILLIONS
Serial No.: 09/666,867 Art Unit: 8371
Filing Date: SEPTEMBER 20, 2000 Docket No.: 11450.70-US-01
Title: METHOD AND DEVICE FOR THE ROLLING OR WINDING OF STRIP

AMENDED CLAIMS MARKED TO SHOW CHANGES

1. (amended) A method for [the] rolling or winding [of] a strip [having an] of unequal thickness [over the strip width], comprising the steps of:

[in which the] measuring a tension in a portion of the strip [length portion limited by] between rolls, winders, or control, guide or deflecting rollers [is measured by means of] with a measuring roller, and

[wherein disturbing] contacting the strip with a partitioning device so as to absorb transverse stresses [caused] in the strip [(4) by the] proximate the measuring roller due to asymmetric introduction of tension and [by] distortions [when the strip runs out of true are kept away from the measuring roller (6) by means of a partitioning device (9)] in the strip.

2. (amended) A device for [the] rolling or winding [of] a strip, [with] comprising:

a measuring roller for measuring [the] stresses in a portion of the strip [length portion limited by] between rolls, winders, or control, guide or deflecting rollers, and

[wherein, between the measuring roller (6) and an assembly (5) causing disturbing stresses in the strip (4),] a partitioning device [(9) for absorbing the disturbing] adapted to absorb transverse stresses [is arranged] in the strip proximate the measuring roller due to asymmetric introduction of tension and distortions in the strip.

3. (amended) The device as claimed in claim 2, wherein the partitioning device [(9) possesses] comprises at least one roller [(10)].

4. (amended) The device as claimed in claim 3, wherein the [rollers (10) are mounted adjustably] at least one roller is adjustable, but [so as] is adapted to be [at a] fixed [location] during operation.

5. (amended) A method for [the] rolling or winding [of] a strip [having an] of equal thickness [over the strip width and/or of the strip length], comprising the steps of:

[in which the] measuring a tension in a portion of the strip [length portion limited by] between rolls, winders, or control, guide or deflecting rollers [is measured by means of] with a measuring roller, and

[wherein disturbing] contacting the strip with a partitioning device so as to absorb transverse stresses [caused] in the strip [(4) by] proximate the measuring roller due to asymmetric introduction of tension and distortions [when the strip runs out of true are kept away from the measuring roller (6) by means of a partitioning device (9)] in the strip.